

**STIC Database Tracking Number: 233573**

**To: JERMIE COZART**  
**Location: RND-10A51**  
**Art Unit: 3726**  
**Tuesday, August 14, 2007**

**Case Serial Number: 10/501916**

**From: KRISTINE SASALA**  
**Location: EIC3700**  
**RND-8B31 / RND-8A34**  
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**kristine.sasala@uspto.gov**

## Search Notes

Hi, Jermie

Attached is the completed search. I did an extensive search on the requested topic in a number of bibliographic and full-text databases. I also searched the inventors in both patent and non-patent literature and have included those results. The things I thought were significant are marked with colored flags. Please be sure to look over all the results as there may be other items of interest. I have attached the search strategies used for the searches performed.

I hope you find this search helpful. If you have a moment, please fill out the attached STIC Feedback Form. And, if there is anything I can do to refine or revise this search, please let me know.

Sincerely,  
Kris Sasala (ASRC)

Access DB# 233573**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: JEROME COZART Examiner #: 75048 Date: 8/7/07  
 Art Unit: 3726 Phone Number: 301-4528 Serial Number: 10/501,916  
 Mail Box and Bldg/Room Location: 10A54 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.  
 \*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

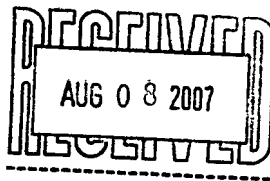
Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

The basic concept of this invention is Recycling in electric appliance wherein components ARE removed from an electric appliance such that a time and cost are determined <sup>for</sup> removing the components. Also profit or loss based on the time to remove the component.

Keywords: timer, detecting, appliance, cost, profit, loss, money, cash flow, time, scrapping cost, determine target time, accumulated profit or loss.



\*\*\*\*\*  
**STAFF USE ONLY**

	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

Set Items Description

S1 8706440 S DISPOS?? OR DISPOSING OR SCRAP OR SCRAPP??? OR REMOV? OR DISASSEMBL? OR DISCARD??? OR RECYCL? OR RECLAIM? OR REPROCESS? OR REUSE? ? OR REUSING OR REUSAGE OR REUSAB? OR RE()(USE? ? OR USING OR USAGE OR USAB? OR CYCL??? OR CLAIM? OR PROCESS???)

S2 14109652 S (ELECTRIC OR ELECTRONIC OR KITCHEN OR COOKING OR HOME)()APPLIANCE? ? OR REFRIGERATOR? ? OR AIR()CONDITION??? OR WATER()(FILTER? ? OR SOFTENER? ?) OR DISHWASHER? ? OR STOVE? ? OR WASHER? ? OR WASHING()MACHINE? ? OR PRINTER? ? OR GRILL? ? OR DRYER? ? OR PRINTER? ? OR COMPUTER? ? OR MICROPROCESSOR? ? OR PC OR CPU? ? OR CENTRAL()PROCESS??? OR HARDDRIVE? ? OR HARD()DRIVE? ? OR LAPTOP? ? OR MONITOR? ? OR KEYBOARD? ?

S3 198521 S S1(20N)S2

S4 34288891 S TIME OR TIMER OR PERIOD? ? OR INTERVAL OR MINUTE? ? OR HOUR? ? OR DAY? ? OR DURATION

S5 413310 S S1(10N)S4

S6 312509 S S1(10N)(MONEY OR DOLLAR? ? OR PROFIT? OR ACCRUAL OR DIVIDEND? ? OR EARNING? ? OR REMUNERAT? OR VALUE OR WORTH OR PROCEEDS OR COST? ? OR COSTING OR MONETARY)

S7 18470 S S5(50N)S6

S8 604 S S7(40N)S3

S9 137873 S S1(10N)S2

S10 416 S S7(40N)S9

S11 79 S S10 FROM 347, 350

S12 337 S S10 NOT S11

S13 2376620 S S1/TI,DE

S14 186 S S12 AND S13

S15 145 RD (unique items)

; show files

[File 5] **Biosis Previews(R)** 1926-2007/Aug W1

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[File 144] **Pascal** 1973-2007/Jul W5

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[File 315] **ChemEng & Biotech Abs** 1970-2007/Jul

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[File 9] **Business & Industry(R)** Jul/1994-2007/Aug 07

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[File 95] **TEME-Technology & Management** 1989-2007/Aug W2

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[File 319] **Chem Bus NewsBase** 1984-2007/Aug 06

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[File 160] **Gale Group PROMT(R)** 1972-1989  
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[File 347] **JAPIO** Dec 1976-2007/Mar(Updated 070809)  
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[File 350] **Derwent WPIX** 1963-2007/UD=200751  
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*\*File 350: DWPI has been enhanced to extend content and functionality of the database. For more info, visit <http://www.dialog.com/dwpi/>.*

11/5/2 (Item 2 from file: 347) **Links**  
JAPIO

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08981707 \*\*Image available\*\*  
**PRINTER**

**Pub. No.:** 2007-021967 [JP 2007021967 A ]  
**Published:** February 01, 2007 (20070201)  
**Inventor:** NARUSE MUTSUMI  
**Applicant:** FUJIFILM HOLDINGS CORP  
**Application No.:** 2005-209461 [JP 2005209461]  
**Filed:** July 20, 2005 (20050720)

**International Patent Class (v8 + Attributes)**  
**IPC + Level Value Position Status Version Action Source Office:**

B41J-0013/02      A I F B 20060101 20070105 H JP

## **ABSTRACT**

**PROBLEM TO BE SOLVED:** To provide a **printer** in which **time** and trouble to **remove** a recording medium is saved with no increase in **cost**.

**SOLUTION:** An ejection roller 42 is fixed by a holding member 43 provided with an urging part 43c, and an ejection roller 41 is urged against the ejection roller 42 by the urging part 43c. An instant-photography sheet 1001 is ejected to the outside of the printer 1 by the ejection rollers 41, 42 which rotate by a driving force from the instant-photography sheet 1001 transferred by a transfer roller.

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08213400 **\*\*Image available\*\***

**RECYCLING PROCESS SYSTEM**

**Pub. No.:** 2004-326160 [JP 2004326160 A ]

**Published:** November 18, 2004 (20041118)

**Inventor:** NAKAJIMA YOSHIYUKI

OIKAWA ATSUTERU

IO MASAACKI

YAGINUMA MASATOSHI

**Applicant:** CANON INC

**Application No.:** 2003-115749 [JP 2003115749]

**Filed:** April 21, 2003 (20030421)

**International Class:** G06F-017/60; G06F-003/12

**ABSTRACT**

**PROBLEM TO BE SOLVED:** To provide an efficient **recycling** process system which takes into account of **costs** and **recycling** process **time** into consideration.

**SOLUTION:** The **recycling** process system includes a host **computer** which stores and retains information indicating how an image forming apparatus is used; a recycling expense management means for calculating, storing and retaining the expenses required for a **recycling** process; and calculation of the **recycling** process **time** for calculating the **time** required for **recycling**. The **recycling** process to be carried out is evaluated and the step of the recycling process is varied according to the result.

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**ELECTRONIC UNIT FOR AUTOMATIC AIR CONDITIONER**

**Pub. No.:** 2003-312229 [JP 2003312229 A ]

**Published:** November 06, 2003 (20031106)  
**Inventor:** TAKEMURA YASUO  
**Applicant:** FUJIKURA LTD  
**Application No.:** 2002-121310 [JP 2002121310]  
**Filed:** April 23, 2002 (20020423)  
**International Class:** B60H-001/00; B60R-016/02

## **ABSTRACT**

**PROBLEM TO BE SOLVED:** To provide an electronic unit for an automatic **air conditioner** which can be **disassembled** at low **cost** and in short **time**.

**SOLUTION:** In the electronic unit for an automatic air conditioner, an FET element 5 which is fixed to the heat receiving surface of a heat sink 2 with a fastening screw 12 is covered with a component mounting substrate 11 and bonded to the component mounting substrate 11. While the FET element 5 is covered with the component mounting substrate 11, a through hole 11A for operating the fastening screw 12 with a tool 11B is formed at a position corresponding to the fastening screw 12 of the component mounting substrate 11. This allows the FET element 5 and the component mounting substrate 11 to be removed in a state being integrally bonded, in disassembling the electronic unit 1.

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07700556 **\*\*Image available\*\***  
**BOTTOM OIL RECOVERY METHOD**

**Pub. No.:** 2003-194436 [JP 2003194436 A ]  
**Published:** July 09, 2003 (20030709)  
**Inventor:** YOSHIMI ATSUSHI  
YAJIMA RYUZABURO  
**Applicant:** DAIKIN IND LTD  
**Application No.:** 2001-391318 [JP 2001391318]  
**Filed:** December 25, 2001 (20011225)  
**International Class:** F25B-045/00; F25B-001/00

## **ABSTRACT**

**PROBLEM TO BE SOLVED:** To reduce labor **hours** and **cost** of **removing** bottom oil, in a method of **removing** the bottom oil in a refrigerant circuit (20) of an **air-conditioner** (10) connecting an outdoor unit (11) with an indoor unit (13) through a gas side connecting pipe (24) and a liquid side connecting pipe (23).

SOLUTION: A liquid side closing valve(25) is closed so as to operating the refrigerant circuit (20) in a heating cycle, so that a liquid refrigerant is filled in the liquid side connecting pipe (23). Subsequently, the heating cycle operation is completed, and the liquid refrigerant filled in at the side of the liquid side connecting pipe (23) is caused to flow into the outdoor unit (11) through the gas side connecting pipe (24). Then, the liquid side closing valve (25) is closed, the refrigerant circuit (20) is switched over to a cooling cycle operation, the refrigerant is recovered into the outdoor unit (11), and the bottom oil of the refrigerant circuit (20) is recovered into the outdoor unit (11).

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**REUSE PROPRIETY DETERMINING DEVICE, REUSE PROPRIETY DETERMINING METHOD, COMPUTER-READABLE STORAGE MEDIUM WITH PROGRAM FOR CARRYING OUT THE METHOD STORED THEREIN**

**Pub. No.:** 2003-122826 [JP 2003122826 A ]

**Published:** April 25, 2003 (20030425)

**Inventor:** EIMIYA MASANORI

**Applicant:** RICOH CO LTD

**Application No.:** 2001-312151 [JP 2001312151]

**Filed:** October 10, 2001 (20011010)

**International Class:** G06F-017/60; G06F-019/00

## ABSTRACT

**PROBLEM TO BE SOLVED:** To provide a **reuse** propriety determining device, a **reuse** propriety determining method and a **computer** readable storage medium storing a program for carrying out the method that can determine the reuse propriety for every part by evaluating the residual life for every part in advance.

**SOLUTION:** In this **reuse** propriety determining method, analysis such as steady analysis, characteristic **value** analysis and dynamic response analysis is made on the operating sound of equipment in operation to carry out stratification of sound information for every part. The residual life of degraded parts is evaluated on the basis of the change with **time** from the sound information of each part to determine the **reuse** propriety of the parts concerned.

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07395934 \*\*Image available\*\*

# CARTRIDGE FOR PRINTER, AND SYSTEM AND METHOD FOR JUDGING RECYCLE OF CARTRIDGE

**Pub. No.:** 2002-264435 [JP 2002264435 A ]

**Published:** September 18, 2002 (20020918)

**Inventor:** SHINKAI MICHINORI

**Applicant:** CANON INC

**Application No.:** 2001-062778 [JP 200162778]

**Filed:** March 07, 2001 (20010307)

**International Class:** B41J-029/38; B41J-002/175; G03G-015/00; G03G-021/00

## ABSTRACT

**PROBLEM TO BE SOLVED:** To judge the possibility of recycle automatically based on information concerning the date of starting use, the number of print sheets, and the like, stored in the storage section of a cartridge, and to manage/decide the possibility of recycle of cartridge or the lifetime of the cartridge itself with minimum necessary cost and labor while utilizing the environmental resources efficiently.

**SOLUTION:** At the time of judging recycle of a cartridge being loaded removably to the printer body, information concerning the date of starting use, the number of print sheets, and the like, stored in the storage section built in the cartridge is read out and a decision is made whether the information thus read out exceeds a predetermined value or not thus judging whether the cartridge can be recycled or not. Possibility of recycle can thereby be judged efficiently and the environmental resources can be utilized efficiently.

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11/5/53 (Item 27 from file: 350) [Links](#)

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0012866942 *Drawing available*

WPI Acc no: 2002-725949/200279

XRAM Acc no: C2002-205716

XRPX Acc No: N2002-572522

**Recovery method of domestic electrical appliance involves crushing of marked dismantled parts of goods during generation of scrap**

Patent Assignee: ISHIDA K (ISHI-I); MITSUBISHI DENKI KK (MITQ); MITSUBISHI ELECTRIC CORP (MITQ); NAGATOMO H (NAGA-I); NAKAGAWA K (NAKA-I); TAKAGI T (TAKA-I); TANABE Y (TANA-I)

Inventor: ISHIDA K; NAGATOMO H; NAKAGAWA K; NAYATOMO H; TAKAGI T; TANABE Y

Patent Family ( 6 patents, 23 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
---------------	------	------	--------------------	------	------	--------	------

JP 2002177934	A	20020625	JP 2000374498	A	20001208	200279	B
WO 2003101637	A1	20031211	WO 2002JP5427	A	20020603	200407	NCE
EP 1510264	A1	20050302	EP 2002730873	A	20020603	200517	NCE
			WO 2002JP5427	A	20020603		
US 20050102812	A1	20050519	WO 2002JP5427	A	20020603	200534	NCE
			US 2004501916	A	20040727		
CN 1617775	A	20050518	CN 2002827751	A	20020603	200559	NCE
			WO 2002JP5427	A	20020603		
US 20070130742	A1	20070614	WO 2002JP5427	A	20020603	200740	NCE
			US 2004501916	A	20040727		
			US 2007673506	A	20070209		

Priority Applications (no., kind, date): JP 2000374498 A 20001208; WO 2002JP5427 A 20020603; EP 2002730873 A 20020603; CN 2002827751 A 20020603; US 2004501916 A 20040727; US 2007673506 A 20070209

#### Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
JP 2002177934	A	JA	33	23		
WO 2003101637	A1	JA				
National Designated States,Original	CN US					
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR					
EP 1510264	A1	EN			PCT Application	WO 2002JP5427
					Based on OPI patent	WO 2003101637
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR					
US 20050102812	A1	EN			PCT Application	WO 2002JP5427
CN 1617775	A	ZH			PCT Application	WO 2002JP5427
US 20070130742	A1	EN			Division of application	WO 2002JP5427
					Division of application	US 2004501916

#### Alerting Abstract JP A

NOVELTY - The parts which are to be dismantled using a tool or hand are marked with codes and sent to a crushing machine for generation of scrap after obtaining dismantled parts.

DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

1. Electrical appliance recovery information system;
2. Electrical appliance dismantling evaluation method;
3. Electrical appliance;
4. Collection equipment of electrical appliance; and

5. Electrical appliance dismantling evaluation equipment.

USE - For recovery of domestic electric appliance.

ADVANTAGE - Increases recycling process. Incurs less expenditure.

DESCRIPTION OF DRAWINGS - The figure shows a flowchart explaining the recycling process of an electrical appliance. (Drawing includes non-English language text).

**Title Terms /Index Terms/Additional Words:** RECOVER; METHOD; DOMESTIC; ELECTRIC; APPLIANCE; CRUSH; MARK; DISMANTLE; PART; GOODS; GENERATE; SCRAP

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
B09B-0003/00	A	I		R	20060101
B09B-0005/00	A	I		R	20060101
B29B-0017/02	A	I	L	R	20060101
G06Q-0050/00	A	I	L	R	20060101
B07B-0013/00	A	I	F	B	20060101
B09B-0003/00	C	I		R	20060101
B09B-0005/00	C	I		R	20060101
B29B-0017/02	C	I	L	R	20060101
G06Q-0050/00	C	I	L	R	20060101
B07B-0013/00	C	I		B	20060101

US Classification, Issued: 029403100, 029403100

File Segment: CPI; EngPI; EPI

DWPI Class: A35; A85; T01; P43

Manual Codes (EPI/S-X): T01-J05A

Manual Codes (CPI/A-N): A11-C03A

11/5/55 (Item 29 from file: 350) [Links](#)

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0012496472 *Drawing available*

WPI Acc no: 2002-444003/200247

XRAM Acc no: C2002-126362

XRPX Acc No: N2002-349824

**Reuse determination for high level disinfectant composition for medical device involves dividing time period at which active ingredient remains at minimum effective concentration by specific factor**

Patent Assignee: HUTH S W (HUTH-I); METREX RES CORP (METR-N)

Inventor: HUTH S W

Patent Family ( 4 patents, 95 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2002026269	A2	20020404	WO 2001US30258	A	20010927	200247	B
AU 200196348	A	20020408	AU 200196348	A	20010927	200252	E
US 20020131890	A1	20020919	US 2000235727	P	20000927	200264	E
			US 2001812088	A	20010319		
US 6468469	B2	20021022	US 2000235727	P	20000927	200273	E
			US 2001812088	A	20010319		

Priority Applications (no., kind, date): US 2000235727 P 20000927; US 2001812088 A 20010319

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2002026269	A2	EN	41	2		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
AU 200196348	A	EN			Based on OPI patent	WO 2002026269
US 20020131890	A1	EN			Related to Provisional	US 2000235727
US 6468469	B2	EN			Related to Provisional	US 2000235727

**Alerting Abstract WO A2**

NOVELTY - Determining (M1) a period during which a high level disinfectant composition for a medical device may be reused without retesting comprising:

- A. determining a period of time in which an active ingredient remains at least at a minimum effective concentration for the high level disinfection; and
- B. decreasing the period (a) by a factor of 10%-90%, is new.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- 6. reusing (M2) a high level disinfectant containing at least one active ingredient in at least a minimum effective concentration (MEC) by establishing a time period for reusing the disinfectant at which the active ingredient remains at least 10% above the MEC, and reusing the disinfectant without retesting for the established time period to achieve high level disinfection during the established time period;

7. high-level disinfecting (M3) devices requiring high level disinfection with reused disinfectant with at least one active ingredient over a time period without testing over the time period to determine efficacy of the active ingredient, comprising:
  - A. dividing a maximum time period for reusing the disinfectant with testing by a factor of 1.1-10.0 to determine the time period for reusing the disinfectant without testing; and
  - B. reusing the disinfectant to high level disinfect devices during the time period (a); and
8. determining (M4) a period during which a high level disinfectant composition for a medical device may be reused without retesting comprising:
  - A. determining the difference between 100% of the labelled active ingredient in the composition and the MEC of the active ingredient;
  - B. and dividing the difference by a factor of 1.1-10.0 to determine a minimum concentration for reusing;
  - C. determining the period for reuse without testing by determining a time for the active ingredient to reach the concentration of (b).

USE - (M1) and (M4) is useful for determining a period during which a high level disinfectant composition for a medical device may be reused. (M2) is useful for reusing a high level disinfectant without retesting. (M3) is useful for disinfecting a number of devices, especially medical devices, with reused disinfectant.

ADVANTAGE - (M1) and (M4) determine a period of reuse of a high level disinfectant without retesting efficacy of the active ingredient. This improves cost and time efficiency.

DESCRIPTION OF DRAWINGS - The figure shows a flow chart for the inventive algorithm.

**Title Terms /Index Terms/Additional Words:** REUSE; DETERMINE; HIGH; LEVEL; DISINFECT; COMPOSITION; MEDICAL; DEVICE; DIVIDE; TIME; PERIOD; ACTIVE; INGREDIENT; REMAINING; MINIMUM; EFFECT; CONCENTRATE; SPECIFIC; FACTOR

#### Class Codes

##### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61L-002/00; A61L-002/18; G01N-033/48			Main		"Version 7"

US Classification, Issued: 422028000, 422003000, 422028000, 422031000

File Segment: CPI; EngPI

DWPI Class: D22; P34

Manual Codes (CPI/A-N): D09-A01

11/5/66 (Item 40 from file: 350) [Links](#)

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0009564497

WPI Acc no: 1999-511277/199943

XRAM Acc no: C1999-149818

XRPX Acc No: N1999-381172

**Optimum scrap usage ratio determining system in steel manufacture - has host computer that determines scrap usage ratio corresponding to minimum manufacture cost and corrects it based on mixing data, scrap inventory level and scrap price data**

Patent Assignee: TOPY KOGYO KK (TOPY-N)

Inventor: INOUE T; KOSUGI Y; NAKAMURA T; UEBAYASHI H; YAMADA S; YOSHIKAWA Y; YOSHINO M

Patent Family ( 1 patents, 1 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
JP 11217619	A	19990810	JP 199818629	A	19980130	199943	B

Priority Applications (no., kind, date): JP 199818629 A 19980130

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
JP 11217619	A	JA	9	5	

**Alerting Abstract JP A**

NOVELTY - A host computer (10) receives mixing data, determining the type and produced quantity of steel, scrap price data and scrap inventory level data. The computer determines the ratio of scrap usage ratio based on minimum steel manufacture cost, by linear programming. During steel manufacture, rate of usage ratio is corrected, based on varying parameters.

USE - For determining optimum scrap usage ratio during steel manufacture.

ADVANTAGE - Enables automatic real **time** variation of **scrap** use ratio, thereby minimizing the manufacturing **cost**. DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the **scrap** usage rate determining system. (10) Host **computer**.

**Title Terms** /Index Terms/Additional Words: OPTIMUM; SCRAP; RATIO; DETERMINE; SYSTEM; STEEL; MANUFACTURE; HOST; COMPUTER; CORRESPOND; MINIMUM; COST; CORRECT; BASED; MIX; DATA; INVENTORY; LEVEL; PRICE

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
C21C-005/52			Main		"Version 7"
C21B-013/00; C21C-005/28; G05B-019/418; G06F-017/60			Secondary		"Version 7"

File Segment: CPI; EPI

DWPI Class: M24; T01; T06; X25

Manual Codes (EPI/S-X): T01-H07C5; T01-J05A; T01-J07B; T06-A04B7; T06-D09; X25-Q01

Manual Codes (CPI/A-N): M24-A07A; M24-E

11/5/70 (Item 44 from file: 350) [Links](#)

Derwent WPIX

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0007875131

WPI Acc no: 1996-506337/199650

XRPX Acc No: N1996-426585

**Method for obtaining cost information in manufacturing facility - stores time and quantity data from work cell in memory location, calculates cost information regarding work cell in response to time and quantity information, outputs cost information**

Patent Assignee: APPLIED BIONOMICS INC (BION-N); MAXAGER TECHNOLOGY INC (MAXA-N);  
MICHESUGY TECHNOLOGY CORP (MICH-N)

Inventor: ROTHSCHILD M L; SHWERT M H

Patent Family ( 7 patents, 25 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1996035187	A1	19961107	WO 1996US5692	A	19960424	199650	B
AU 199656671	A	19961121	AU 199656671	A	19960424	199711	E
EP 839359	A1	19980506	EP 1996913830	A	19960424	199822	E
			WO 1996US5692	A	19960424		
JP 11505646	W	19990521	JP 1996533364	A	19960424	199931	E
			WO 1996US5692	A	19960424		
US 5966694	A	19991012	US 1995431679	A	19950502	199949	E
			US 1997880320	A	19970623		
BR 199608460	A	19991130	BR 19968460	A	19960424	200014	E
			WO 1996US5692	A	19960424		
CN 1189228	A	19980729	CN 1996194813	A	19960424	200271	E

Priority Applications (no., kind, date): US 1997880320 A 19970623; US 1995431679 A 19950502

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 1996035187	A1	EN	55	19		
National Designated States,Original	AU BR CN JP MX SG					
Regional Designated	AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE					

States,Original						
AU 199656671	A	EN			Based on OPI patent	WO 1996035187
EP 839359	A1	EN		0	PCT Application	WO 1996US5692
					Based on OPI patent	WO 1996035187
Regional Designated States,Original	AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
JP 11505646	W	JA	49		PCT Application	WO 1996US5692
					Based on OPI patent	WO 1996035187
US 5966694	A	EN			Continuation of application	US 1995431679
BR 199608460	A	PT			PCT Application	WO 1996US5692
					Based on OPI patent	WO 1996035187

#### Alerting Abstract WO A1

The method for obtaining cost information stores time and quantity data from a work cell in a memory location. Cost information regarding the work cell is calculated in response to the time and quantity information. The cost information is outputted.

The work cell completes a manufacturing process step. The time and quantity data includes a unit acceptance time and unit acceptance quantity which includes a begin run time, a complete run time and a complete quantity of the manufacturing process step.

USE - For obtaining cost information to improve efficiency and profitability in manufacturing products.

**Title Terms /Index Terms/Additional Words:** METHOD; OBTAIN; COST; INFORMATION; MANUFACTURE; FACILITY; STORAGE; TIME; QUANTITY; DATA; WORK; CELL; MEMORY; LOCATE; CALCULATE; RESPOND; OUTPUT

#### Class Codes

##### International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
G06F-017/30; G06F-017/60			Main		"Version 7"
B23Q-041/08; G06G-007/48; H01L-021/02			Secondary		"Version 7"

US Classification, Issued: 705007000

File Segment: EngPI; EPI;

DWPI Class: T01; T05; P56

Manual Codes (EPI/S-X): T01-J05A2; T01-J07; T05-G02B

11/5/78 (Item 52 from file: 350) [Links](#)

Derwent WPIX

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0004199189

WPI Acc no: 1987-312858/198744

XRPX Acc No: N1987-234034

**Agricultural products optimum storage time calculator - uses indication unit and unit for setting period for extracting non-conditioned part of stored material**

Patent Assignee: MOSGORISPOLKOM (MOSG-R)

Inventor: MIRIANASHV T G; TARAN V A

Patent Family ( 1 patents, 1 countries )

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
SU 1292013	A	19870223	SU 3831681	A	19841225	198744	B

Priority Applications (no., kind, date): SU 3831681 A 19841225

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
SU 1292013	A	RU	10	12	

**Alerting Abstract SU A**

The optimisation of the **period** for **removing** that part of the products stored without air conditioning is achieved by finding the minimum for the total expenses or costs: cost C1 incurred in **removing** the non-conditional part reducing as the **time** span increases, and **cost** C2 resulting from losses of storage product due to not **removing** the unconditioned part and so increasing as the **time** span or the **removal time** increases. Since one **cost** reduces as the other increases, the curve of the variation of the total with respect to time has a saddle form and there is clearly an optimal **time** for **removal** of the material. The expressions for both these **costs** are given, that for C1 being of an exponential nature and that for C2 of a logarithmic nature, and depend on the quantity of the products and other constants. The minimum value can be expressed mathematically and the device is designed to evaluate this value automatically. There is an indicating unit (1) a timing unit (2) a parameter setting unit (3) and two units (5 and 6) to form the transcendental functions required.

USE/ADVANTAGE - Suitable for analogue computing systems, especially those concerned with problems involving transcendental functions. Improved accuracy. Bul.7/23.2.87

**Title Terms /Index Terms/Additional Words:** AGRICULTURE; PRODUCT; OPTIMUM; STORAGE; TIME ; CALCULATE; INDICATE; UNIT; SET; PERIOD; EXTRACT; NON; CONDITION; PART; MATERIAL

**Class Codes**

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
G06G-0007/122	A	I		R	20060101
G06G-0007/00	C	I		R	20060101

File Segment: EPI;  
DWPI Class: T02  
Manual Codes (EPI/S-X): T02-A04B9

15/K/2 (Item 1 from file: 40) [Links](#)

Enviroline(R)

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00671032 **Enviroline Number:** 04-18985

**The Distant Future: Electronic Scrap Recycling**

Hogye, Thomas V., United Datatech/ECS Refining, Santa Clara, CA

Recycling Today v42, n10, p118(5)

Oct 04

**Journal Announcement:** 20041200

**Document Type:** journal article **Language:** English

( Full text available from Congressional Information Service at 1-800-227-2477. )

**The Distant Future: Electronic Scrap Recycling**

**Abstract:** The inner workings of the emerging electronics recycling sector are revealed by tracking three obsolete products-a computer, a monitor, and a printer- through the recycling stream. The materials include a wide range of metals, glass, plastics, and heavy metals. Most products are dropped off at one-day recycling events; from there, they enter a complex process of assessing value, reusability, material content, and breakdown costs. Ultimately, only a small portion of the material is valuable, while some is quite toxic. In most cases, the cost of reprocessing outweighs the economic value of the materials.

**Major Descriptors:** RECYCLING

15/K/3 (Item 1 from file: 2) [Links](#)

Fulltext available through: [ScienceDirect](#)

INSPEC

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10098315

**Title:** End-of-life personal computer systems in California: analysis of emissions and infrastructure needed to recycle in the future

**Author** Hai-Yong Kang; Schoenung, J.M.

**Author Affiliation:** Dept. of Chem. Eng. & Mater. Sci., California Univ., Davis, CA, USA

**Conference Title:** Proceedings of the 2006 IEEE International Symposium on Electronics and the Environment (IEEE Cat. No. 06CH37796) p. 5 pp.

**Publisher:** IEEE , Piscataway, NJ, USA

**Publication Date:** 2006 **Country of Publication:** USA CD-ROM pp.

**ISBN:** 1 4244 0351 0 **Material Identity Number:** XX-2006-01304

**U.S. Copyright Clearance Center Code:** 1-4244-0351-0/06/\$20.00

**Conference Title:** Proceedings of the 2006 IEEE International Symposium on Electronics and the Environment

**Conference Date:** 8-11 May 2006 **Conference Location:** Scottsdale, AZ, USA

**Language:** English

**Subfile:** B E

Copyright 2006, The Institution of Engineering and Technology

**Title:** End-of-life personal computer systems in California: analysis of emissions and infrastructure needed to recycle in the future

**Abstract:** ...to estimate future quantities of electronic waste (e-waste), and to the estimate the total cost for e-waste recycling in California. To generate estimates, we used a time-series materials flow analysis model (MFAM). The model estimates future e-waste quantities by modeling... ..disposal. We consider four scenarios for the estimation of future e-waste generation. To calculate cost for recycling, we used technical cost modeling (TCM). The results of the present research indicate that the outflow (recycling) amount of central processing units (CPUs) will increase and will reach approximately 8.5 million units per year in 2013, but the outflow ( recycling) of cathode ray tube (CRT) monitors will decrease from 2004 in California. After the State of California enacted the ban on ...

**Descriptors:** ...recycling;

15/K/4 (Item 2 from file: 2) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

INSPEC

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09918216

**Title:** Plastic separation planning for end-of-life electronics

**Author** Williams, J.A.S.; Grant, E.R.; Rios, P.; Blyler, L.; Tieman, L.; Twining, L.; Bonawi-Tan, W.; Madden, M.; Guthrie, N.R.M.

**Author Affiliation:** Dept. of Manage. & Manage. Inf. Syst., Univ. of West Florida, Pensacola, FL, USA

**Journal:** IEEE Transactions on Electronics Packaging Manufacturing vol.29, no.2 p. 110-18

**Publisher:** IEEE ,

**Publication Date:** April 2006 **Country of Publication:** USA

**CODEN:** ITEPFL **ISSN:** 1521-334X

**SICI:** 1521-334X(200604)29:2L;1-T

**Material Identity Number:** H313-2006-002

**Item Identifier (DOI):** [10.1109/TEPM.2006.874968](https://doi.org/10.1109/TEPM.2006.874968)

**Language:** English

**Subfile:** B E

Copyright 2006, The Institution of Engineering and Technology

**Abstract:** Important challenges remain for sustainable design, manufacture, use, and **recycling** of electronics including materials selection and **disassembly time**. This paper examines the **value** relationship between the quantity of plastics separated and the **time** required for **disassembly** and segregation. Labor **costs** for **disassembly** can constitute a large portion of the total acquisition **cost** for a **recycled** material. We report work measurement studies conducted on the **disassembly** of 21 **computers**, 22 **printers**, and 32 **monitors** manufactured by 27 producers in the years from 1984 to 2001. Results include the weight...

**Descriptors:** ...design for **disassembly**; ... ..**recycling**

15/K/5 (Item 3 from file: 2) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

INSPEC

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09068529 **INSPEC Abstract Number:** C2004-10-7480-025

**Title:** Cost model for the disassembly processes of assembled products

**Author** Xie Jiaping; Chen Rongqiu

**Author Affiliation:** Coll. of Manage., Huazhong Univ. of Sci. & Technol., China

**Journal:** Journal of Huazhong University of Science and Technology vol.31, no.5 p. 92-4

**Publisher:** Editorial Board J. Huazhong Univ. of Sci. & Technol ,

**Publication Date:** May 2003 **Country of Publication:** China

**CODEN:** HLDXE6 **ISSN:** 1671-4512

**SICI:** 1671-4512(200305)31:5L:92:CMDP;1-Q

**Material Identity Number:** E864-2003-005

**Language:** Chinese

**Subfile:** C E

Copyright 2004, IEE

**Title:** Cost model for the disassembly processes of assembled products

**Abstract:** ...between the attainment matrix (R) and the disassembly decision vector (X), the nodes to be disassembled can be determined. Based on that, the algorithm for disassembly time and disassembly cost, and a 0-1 programming model of optimizing product's disassembly were established. Practical examples of PC's disassembly were given. A best disassembly project was available by finding solutions through the model to meet the demand.

15/K/6 (Item 4 from file: 2) [Links](#)

Fulltext available through: [ScienceDirect](#)

INSPEC

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08762990 **INSPEC Abstract Number:** B2003-11-0170Q-062

**Title:** A symbolic methodology to improve manual disassembly economics

**Author** Rios, P.; Blyler, L.; Tieman, L.; Stuart, J.A.; Duplaga, L.; Meyer, N.; Grant, E.

**Author Affiliation:** Sch. of Ind. Eng., Purdue Univ., West Lafayette, IN, USA

**Conference Title:** Conference Record. 2003 IEEE International Symposium on Electronics and the Environment (Cat. No.03CH37425) p. 341-6

**Publisher:** IEEE , Piscataway, NJ, USA

**Publication Date:** 2003 **Country of Publication:** USA 382 pp.

**ISBN:** 0 7803 7743 5 **Material Identity Number:** XX-2003-02142

**U.S. Copyright Clearance Center Code:** 0-7803-7743-5/03/\$17.00

**Conference Title:** Conference Record. 2003 IEEE International Symposium on Electronics and the Environment

**Conference Sponsor:** IEEE Comput. Soc., Tech. Committee on Electron. Environ.; Int. Assoc. Electron. Recyclers

**Conference Date:** 19-22 May 2003 **Conference Location:** Boston, MA, USA

**Language:** English

**Subfile: B**

Copyright 2003, IEE

**Title: A symbolic methodology to improve manual disassembly economics**

**Abstract:** ...from end-of-life electronics, much less is known from quantitative models about the optimal disassembly and separation of other materials such as plastics from personal computers. In this paper, the value relationship is examined between the time required for disassembly and segregation with and without the proposed symbolic methodology. Labor costs for disassembly can contribute substantially to the total cost of recovered material. We seek to answer the question: how can the extended supply chain label a large variety of products to reduce the exploration and familiarization activity time prior to disassembly. Work measurement studies were conducted on the disassembly of seventeen computers manufactured by nine producers from 1986 to 1998. The improvement in the initial disassembly processing...

**Descriptors:** ...recycling

15/K/7 (Item 5 from file: 2) [Links](#)

Fulltext available through: [ScienceDirect](#)

INSPEC

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08762946 **INSPEC Abstract Number:** B2003-11-0170Q-024

**Title: Plastic separation planning enhancements from new laser identification technology and work measurement analysis**

**Author** Blyler, L.; Tieman, L.; Stuart, J.A.; Duplaga, L.; Meyer, N.; Grant, E.

**Author Affiliation:** Sch. of Ind. Eng., Purdue Univ., West Lafayette, IN, USA

**Conference Title:** Conference Record. 2003 IEEE International Symposium on Electronics and the Environment (Cat. No.03CH37425) p. 105-10

**Publisher:** IEEE, Piscataway, NJ, USA

**Publication Date:** 2003 **Country of Publication:** USA 382 pp.

**ISBN:** 0 7803 7743 5 **Material Identity Number:** XX-2003-02142

**U.S. Copyright Clearance Center Code:** 0-7803-7743-5/03/\$17.00

**Conference Title:** Conference Record. 2003 IEEE International Symposium on Electronics and the Environment

**Conference Sponsor:** IEEE Comput. Soc., Tech. Committee on Electron. Environ.; Int. Assoc. Electron. Recyclers

**Conference Date:** 19-22 May 2003 **Conference Location:** Boston, MA, USA

**Language:** English

**Subfile: B**

Copyright 2003, IEE

**Abstract:** ...paper, we examine specifically the value relationship between the quantity of plastics separated and the time required for disassembly and segregation. Labor costs for disassembly can constitute a large portion of the total acquisition cost for a recycled material. We have conducted work measurement studies on the disassembly of 17 computers and three printers manufactured by ten producers in the years from 1986 to 1998. For each plastic part...

**Descriptors:** ...recycling;

15/K/11 (Item 9 from file: 2) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

INSPEC

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07252509 **INSPEC Abstract Number:** C1999-07-0310F-001

**Title:** Costs and benefits of reuse

**Author** Thorne, F.

**Author Affiliation:** Sch. of Comput. Sci., Univ. of Technol., Sydney, NSW, Australia

**Journal:** Australian Computer Journal vol.31, no.1 p. 1-8

**Publisher:** Australian Comput. Soc ,

**Publication Date:** Feb. 1999 **Country of Publication:** Australia

**CODEN:** ACMJB2 **ISSN:** 0004-8917

**SICI:** 0004-8917(199902)31:1L:1:CBR;1-R

**Material Identity Number:** A219-1999-002

**Language:** English

**Subfile:** C

Copyright 1999, IEE

**Title:** Costs and benefits of reuse

**Abstract:** Reuse will increase the quality of our computer systems and staff productivity during development and maintenance phases. Reuse does not occur for free-we must manage the costs of creation, usage and support, along with changing our practices so that reuse is not just part of a utopian vision but a day to day activity throughout the development process. Measurement of reuse levels, staff trained and/or specialising in reuse, software support for the process of reuse...

**Descriptors:** ...software reusability;

15/K/14 (Item 12 from file: 2) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

INSPEC

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06042021 **INSPEC Abstract Number:** B9510-8570-002

**Title:** A study on consumer-appliance recycling

**Author** Katagiri, T.; Ikeda, Y.; Matsumura, T.

**Journal:** Mitsubishi Denki Giho vol.69, no.6 p. 13-17

**Publication Date:** 1995 **Country of Publication:** Japan

**CODEN:** MTDNAF **ISSN:** 0369-2302

**Language:** Japanese

**Subfile:** B

Copyright 1995, IEE

**Title:** A study on consumer-appliance recycling

**Abstract:** The authors took 1983 and 1993 model color TVs, refrigerators, room air conditioners and washing machines, carefully measured the primary disassembly time, the proportions of basic materials, material

combinations, and year-by-year changes in composition. They... ..and calculate the ratio of materials incorporated. The authors use this information to analyze the costs of a consumer-appliance recycling infrastructure, and recommend industry-wide adoption of product assessment procedures during design.  
**Descriptors:** ...recycling;

15/K/23 (Item 2 from file: 8) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

Ei Compendex(R)

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11220870 E.I. No: EIP06371011072

**Title:** Estimation of future outflows and infrastructure needed to recycle personal computer systems in California

**Author:** Kang, Hai-Yong; Schoenung, Julie M.

**Corporate Source:** Department of Chemical Engineering and Materials Science University of California, Davis, CA 95616, United States

**Source:** Journal of Hazardous Materials v 137 n 2 Sep 21 2006. p 1165-1174

**Publication Year:** 2006

**CODEN:** JHMAD9 **ISSN:** 0304-3894

**DOI:** 10.1016/j.jhazmat.2006.03.062

**DOI:** [10.1016/j.jhazmat.2006.03.062](#)

**Language:** English

**Title:** Estimation of future outflows and infrastructure needed to recycle personal computer systems in California

**Descriptors:** \*Solid wastes; Recycling; Waste utilization; Personal computers; Costs; Time series analysis; Mathematical models

15/K/30 (Item 9 from file: 8) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

Ei Compendex(R)

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08258153 E.I. No: EIP99034622403

**Title:** Replacement strategy for aging avionics computers

**Author:** Luke, Jahn; Bittorie, John W.; Cannon, William J.; Haldeman, Douglas G.

**Corporate Source:** Air Force Research Lab, Wright-Patterson AFB, OH, USA

**Source:** IEEE Aerospace and Electronic Systems Magazine v 14 n 3 Mar 1999. p 7-11

**Publication Year:** 1999

**CODEN:** IESMEA **ISSN:** 0885-8985

**Language:** English

**Descriptors:** \*Legacy systems; Avionics; Interfaces (computer); Binary codes; Software engineering; Embedded systems; Cost effectiveness; Real time systems; Computer software reusability



15/K/31 (Item 10 from file: 8) [Links](#)

Fulltext available through: [ScienceDirect](#)

Ei Compendex(R)

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07235509 E.I. No: EIP95082835603

**Title: Wirtschaftliches Recycling von Bildroehren durch Demontage**

**Title: Economical recycling of cathode ray tubes by means of disassembly**

**Author:** Seliger, Guenther; Schmidtmann, Reinhard; Hentschel, Claudia

**Source:** Zeitschrift fuer Wirtschaftlichen Fabrikbetrieb v 90 n 6 June 1995. p 295-297

**Publication Year:** 1995

**CODEN:** 002049 **ISSN:** 0932-0482

**Language:** German

**Title: Wirtschaftliches Recycling von Bildroehren durch Demontage**

**Title: Economical recycling of cathode ray tubes by means of disassembly**

**Abstract:** ...disassembly facility for a wide spectrum of cathode ray tubes from disused TV sets and monitors. The example illustrates that disassembly is profitable even at this time. (Author abstract) 7 Refs.

**Descriptors:** \*Recycling; Cathode ray tubes; Television; Display devices; Facilities; Assembly

15/K/34 (Item 1 from file: 248) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

PIRA

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00718323 **Pira Accession Number:** 20296161

**Title: Heavy metal movers and shakers: trends in the UK metal recycling industry**

**Authors:** Davy G

**Source:** Mater. Recycling Week. vol. 189, no. 6, 9 Feb. 2007, pp 15-16

**ISSN:** 1354-8522

**Publication Year:** 2007

**Document Type:** Journal Article

**Language:** English

**Title: Heavy metal movers and shakers: trends in the UK metal recycling industry**

**Abstract:** ...of-life vehicles (ELV) and waste electrical electronic equipment (WEEE), which puts the emphasis to recycle on the consumer and big business and supports costs of processes not previously economically feasible, will open opportunities for metal recycling. As a comparison, the introduction of the hazardous waste regulations increased the volume of cathode (CRT) based monitors and televisions recycled by 4,885% during the period from introduction in July 2005 to September 2006. The Sims Group recovers more than 2m...

**Descriptors:** ...RECYCLABLE MATERIAL... ...RECYCLING; ... ...SCRAP;

15/K/40 (Item 3 from file: 323) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

RAPRA Rubber & Plastics

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00660552

**Title: RECYCLED FRIDGES**

**Source:** Macplas International ; No.9, Aug. 1997, p.25

ISSN: 0394-3453

**Journal Announcement:** 199802 **RAPRA Update:** 199803

**Document Type:** Journal Article

**Language:** English

**Subfile:** (R) RAPRA

**Title: RECYCLED FRIDGES**

**Abstract:** Ecosesto, a recycling plant for refrigerators has officially opened in April 1997 with an initial capacity for 25,000 parts and... ..a year. Italy's national decree law states that large electrical domestic appliances must be recycled, and in three years time it is to introduce a surety deposit to be paid by a customer at the time of purchasing a new appliance. Details are given of the market, the profitability of the scheme and the recycling process.

**Descriptors:** ...COST; DATA; DOMESTIC APPLIANCE; FOAMING AGENT; PLANT CAPACITY; PLANT START-UP; PLASTIC; PRODUCTION COST; PROFITABILITY; RECYCLING; REFRIGERATOR; SHREDDING; WASTE COLLECTION; WASTE DISPOSAL; WASTE SEPARATION

15/K/42 (Item 1 from file: 144) [Links](#)

Fulltext available through: [ScienceDirect](#)

Pascal

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16195148 PASCAL No.: 03-0353578

Balancing reuse opportunities and performance gains with subblock value reuse

HUANG J; LILJA D J

Sun Microsystems MS UBLM02, Bloomington, MN 55435, United States

Journal: IEEE Transactions on Computers,

2003, 52 (8)

1032-1050

Language: English

Balancing **reuse** opportunities and performance gains with subblock  
value **reuse**

English Descriptors: Instruction level parallelism; Superscalar processor;  
Balancing **reuse**; Subblock **reuse**; Value **reuse**;  
Compiler flow analysis; Value locality; Experiments;  
Computer software **reusability**; Program compilers;  
Computer hardware; Response time (computer systems);  
Data flow analysis; Algorithms; Computational complexity; Parallel  
processing systems

15/K/45 (Item 1 from file: 9) Links

Business & Industry(R)

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04144803 Supplier Number: 157034861 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Aluminum engine: a researcher draws a connection between economic prosperity and aluminum recycling.  
( aluminum product recycling reduces national debt )**

Recycling Today , v 44 , n 12 , p S8

December 2006

**Document Type:** Journal ISSN: 1096-6323 ( United States )

**Language:** English **Record Type:** Fulltext

**Word Count:** 1764 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Aluminum engine: a researcher draws a connection between economic prosperity and aluminum recycling.  
( aluminum product recycling reduces national debt**

**TEXT:**

...year.

DOING GOOD

Looking at it from another perspective, the Container Recycling Institute  
reports that **recycling** one aluminum can saves enough electricity to  
run a **laptop computer** for more than 10 hours.

**Recycling** cans puts **money** into nonprofit organizations'  
pockets, too. The Aluminum Association states that each year in the United  
...

15/K/52 (Item 8 from file: 9) Links

Business & Industry(R)

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02738423 Supplier Number: 25193959 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Recycling version 2.0: United Recycling Industries rolls out its comprehensive approach to electronics recycling. (Cover Story)**

Recycling Today , v 40 , n 4 , p 20(6)

April 2002

**Document Type:** Journal; Cover Story **ISSN:** 1096-6323 ( United States )

**Language:** English **Record Type:** Fulltext

**Word Count:** 2248 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Recycling version 2.0: United Recycling Industries rolls out its comprehensive approach to electronics recycling. (Cover Story)**

**TEXT:**

...the recycling process.

Within the 300,000 square foot West Chicago complex operated by United Recycling are several different operating units.

Initially, **computers** and other machines enter a "triage" area, where their next move is determined. Some machines...

...instructions ordering hard drive erasure. Up to 60 monitors can be tested at the same time to see if they have re-sale or **re-use value**. (According to Jim Glavin, about 30 percent of incoming **monitors** are re-sold, while the rest are **disassembled** and shredded later.)

Integrated circuits (IC) are still pulled and sorted by type. In a...

...followed the scrap industry's model," says president and CEO Bob Glavin.

At the same time, United practices **re-use** methods in addition to seeking raw secondary commodities. **Profit** is often the motive for this, as with the re-sale of **monitors** and **computer chips**.

The **re-use** activities of United, combined with the high-yield shredding operation, allows the company to claim...

15/K/53 (Item 9 from file: 9) **Links**

Business & Industry(R)

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02465588 Supplier Number: 24868953 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Project gauges C&D recycling efficiency**

**( Alliant Energy Corp examines recycling of construction debris generated by construction of its new**

headquarters )

Waste News , v 7 , p 10

May 28, 2001

**Document Type:** Journal ISSN: 1091-6199 ( United States )

**Language:** English **Record Type:** Fulltext

**Word Count:** 589 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Project gauges C&D recycling efficiency**

**( Alliant Energy Corp examines recycling of construction debris generated by construction of its new headquarters**

**TEXT:**

...By sharing this information, we hope to see more of this happening on other construction.''

**Recycling** is done on a **time**-based management approach, with containers for various materials on-site only on days during which...  
...is generated. Walter J. Spear, the solid waste consultant for the project, said just-in-time delivery of specific **recycling** containers has proven **cost**-effective and efficient for source separation and keeping materials free of contaminants.

The Wisconsin Department of Natural Resources awarded a \$53,000 grant to develop the **recycling** strategy and monitor and publish the results. Alliant Energy and Opus North matched the state grant with another ...

15/K/59 (Item 15 from file: 9) **Links**

Business & Industry(R)

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01294934 Supplier Number: 23931917 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Recyclers cull riches from refuse**

**( Handy & Harman Refining Group has created Electronics Recycling Services to recover useable components, parts, and precious metals from computers and other electronic applications )**

American Metal Market Precious Metals Supplement , p 10A

June 16, 1997

**Document Type:** Journal; Company Overview ISSN: 0002-9998 ( United States )

**Language:** English **Record Type:** Fulltext

**Word Count:** 958 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Recyclers cull riches from refuse**

**( Handy & Harman Refining Group has created Electronics Recycling Services to recover useable components, parts, and precious metals from computers and other electronic applications**

**TEXT:**

...fee for reclaiming precious metals is based on tonnage and the quantity of precious metals **reclaimed** from the lot. The **cost** to refine electronic **scrap** in an environmentally safe way usually falls between 60 cents and \$1.25 per pound...

...a report itemizing the metals recovered and how much they will receive.

Not all of **time** material contained in a desktop **computer** can be efficiently **recycled**. Some of the plastics and glass fall into this category. Companies are beginning to realize that the **cost** to **recycle** this material can be greater than its **worth**. There is a lot of research under way on techniques to recycle plastic, despite limited...

15/K/61 (Item 17 from file: 9) [Links](#)

Business & Industry(R)

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00978866 Supplier Number: 23530587 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Utility to keep recycling plan**

**( Southern California Edison extends its program to recycle older household refrigerators through 1997 )**

Waste News , v 2 , n 2 , p 18

May 27, 1996

**Document Type:** Journal ISSN: 1091-6199 ( United States )

**Language:** English **Record Type:** Fulltext

**Word Count:** 302 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Utility to keep recycling plan**

**( Southern California Edison extends its program to recycle older household refrigerators through 1997 )**

**TEXT:**

...curtailed move the last year and a half because of regulatory uncertainties.

The Southern California **refrigerator recycling** program is expected to generate about \$7 million for Appliance **Recycling** Centers during the two-year **period**, compared with about \$2 million had the program been phased out.

"This will enable us...

...center at near capacity," Cameron said.

"It's our largest market by far, and the **refrigerator recycling** program is one of the most **cost-effective** programs they have. It's a win-win situation," he said.

15/K/63 (Item 1 from file: 95) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

TEME-Technology & Management

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02224979 20070706627

**A life cycle based multi-objective optimization model for the management of computer waste**

Ahluwalia, Poonam Khanijo; Nema, Arvind K

Indian Institute of Technology (IIT) Delhi, New Delhi, IN

Resources, Conservation and Recycling, v51, n4, pp792-826 , 2007

**Document type:** journal article **Language:** English

**Record type:** Abstract

**ISSN:** 0921-3449

**Abstract:**

...from having computer waste from its native population receives large quantities of imported second hand **computers**. The model has been used to evaluate management **cost** and **reuse time** span or life cycle of various streams of **computer** waste for different objectives of economy, perceived risk and environmental impact. The model results for...

**Descriptors:** ...GARBAGE; OPTIMISATION MODEL; MICROCOMPUTERS; **RECYCLING**---... ..WASTES; ENVIRONMENTAL CARE; **REUSABILITY**

15/K/75 (Item 1 from file: 64) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

Environmental Engineering Abstracts

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0000079069 IP Accession No: 0185487

**Economical recycling of cathode ray tubes by means of disassembly**

Seliger, Guenther; Schmidtman, Reinhard; Hentschel, Claudia

Z WIRTSCH FABR , v 90 , n 6 , p 295-297 , 1995

**Publisher:** Carl Hanser Verlag , P.O.B. 860420, Kolbergerstrasse 22 , Munich 80 , D-8000

**Country Of Publication:** Germany

**Publisher Url:** <http://www.hanser.de/>

**Publisher Email:** [info@hanser.de](mailto:info@hanser.de)

**Document Type:** Journal Article

**Record Type:** Abstract

**Language:** German

**ISSN:** 0932-0482

**File Segment:** Environmental Engineering Abstracts

**Economical recycling of cathode ray tubes by means of disassembly**

**Abstract:**

...disassembly facility for a wide spectrum of cathode ray tubes from disused TV sets and monitors. The example illustrates that disassembly is profitable even at this time.

**Descriptors:** Disassembly; Industrial disassembly facility; Cathode ray tubes; Television; Display devices; Facilities; Assembly

15/K/82 (Item 7 from file: 23) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

CSA Technology Research Database



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0007678748 IP Accession No: 200610-90-139458

**Large-scale industrial reuse to reduce cost and cycle time**

Henry, E; Faller, B

IEEE Software , v 12 , n 5 , p 47-53 , Sept. 1995

**Publication Date:** 1995

**Publisher:** Institute of Electrical and Electronics Engineers, Inc. , 445 Hoes Ln , Piscataway , NJ , 08854-1331

**Country Of Publication:** USA

**Publisher Url:** <http://ieee.org>

**Publisher Email:** [inspec@ieee.org](mailto:inspec@ieee.org)

**Document Type:** Journal Article

**Record Type:** Abstract

**Language:** English

**ISSN:** 0740-7459

**File Segment:** Computer & Information Systems Abstracts

**Large-scale industrial reuse to reduce cost and cycle time**

**Descriptors:** Reuse; Cycle time; Cost engineering; Software reuse; Productivity; Software; Computer programs; Strategy

15/K/121 (Item 23 from file: 16) **Links**

Gale Group PROMT(R)

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09845469 **Supplier Number:** 85919375 (USE FORMAT 7 FOR FULLTEXT)

**Recycling version 2.0: United Recycling Industries rolls out its comprehensive approach to electronics recycling. (Cover Story).(Brief Article)**

Taylor, Brian

Recycling Today , v 40 , n 4 , p 20(6)

April , 2002

**Language:** English **Record Type:** Fulltext

**Article Type:** Brief Article

**Document Type:** Magazine/Journal ; Trade

**Word Count:** 2469

**Recycling version 2.0: United Recycling Industries rolls out its comprehensive approach to electronics recycling. (Cover Story).(Brief Article)**

...the recycling process.

Within the 300,000 square foot West Chicago complex operated by United **Recycling** are several different operating units.

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area, where their next move is determined. Some machines...

...instructions ordering hard drive erasure. Up to 60 monitors can be tested at the same time to see if they have re-sale or re-use value. (According to Jim Glavin, about 30 percent of incoming monitors are re-sold, while the rest are disassembled and shredded later.)

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At the same time, United practices re-use methods in addition to seeking raw secondary commodities. Profit is often the motive for this, as with the re-sale of monitors and computer chips.

The re-use activities of United, combined with the high-yield shredding operation, allows the company to claim...

**Descriptors:**

\*Recycling industry...

**SIC Codes:**

5093 (Scrap and waste materials)

**NAICS Codes:**

42193 (Recyclable Material Wholesalers)

15/K/136 (Item 38 from file: 16) Links

Gale Group PROMT(R)

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02731836 Supplier Number: 43655292 (USE FORMAT 7 FOR FULLTEXT)

**Cash dispenser will aid recycling yards pay out**

American Metal Market , p 10

Feb 17 , 1993

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Tabloid ; Trade

Word Count: 148

(USE FORMAT 7 FOR FULLTEXT)

**Cash dispenser will aid recycling yards pay out**

**Text:**

PHILADELPHIA - A Maryland company that supplies computer software for the recycling industry has developed a new cash and coin dispensing system which it said can reduce payroll costs, cut the time it takes to pay for scrap and minimize theft.

15/K/140 (Item 42 from file: 16) [Links](#)

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01545105 **Supplier Number: 41887626 (USE FORMAT 7 FOR FULLTEXT)**

**Recycling parts-washer solvent can save money**

Tire Business , p 7

Feb 25 , 1991

**Language:** English **Record Type:** Fulltext

**Document Type:** Magazine/Journal ; Trade

**Word Count:** 977

**Recycling parts-washer solvent can save money**

...Co., in Eden Prairie, Minn., an auto service shop that uses three or more parts **washers** can **cost** effectively **recycle** its own parts-**washer** solvent.

Kleer-flo, which manufactures parts **washers** and solvent, now makes a machine that automatically **recycles** up to 30 gallons of dirty solvent in about four **hours**. Suggested user price for this solvent **recycler** is \$5,295.

The common drum-mounted parts **washer** in an auto repair shop is typically serviced every two to three weeks at an...

Set	Items	Description
S1	5955	S AU= (TAKAGI, T? OR TAKAGI T?)
S2	2280	S AU= (TANABE, Y? OR TANABE Y?)
S3	353	S AU= (NAGATOMO, H? OR NAGATOMO H?)
S4	5246	S AU= (ISHIDA, K? OR ISHIDA K?)
S5	6480	S AU= (NAKAGAWA, K? OR NAKAGAWA K?)
S6	0	S TSUKASA (2N) TAKAGI
S7	0	S YOSHIHIRO (2N) TANABE
S8	0	S HIDEAKI (2N) NAGATOMO
S9	0	S KAZUHIRO (2N) ISHIDA
S10	0	S KOUICHI (2N) NAKAGAWA
S11	247853	S SCRAP OR SCRAPP??? OR RECYCL? OR RECLAIM? OR REPROCESS? OR REUSE? ? OR REUSING OR REUSAGE OR REUSAB? OR RE() (USE? ? OR USING OR USAGE OR USAB? OR CYCL??? OR CLAIM? OR PROCESS???)
S12	229	S S11 AND S1:S5
S13	80785	S S11/TI
S14	76	S S12 AND S13
S15	226	S S12 FROM 347, 350
S16	3	S S12 NOT S15
S17	3	RD (unique items)
S18	73	S S14 NOT S16

; show files

[File 350] **Derwent WPIX 1963-2007/UD=200751**

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*\*File 350: DWPI has been enhanced to extend content and functionality of the database. For more info, visit <http://www.dialog.com/dwpi/>.*

[File 35] **Dissertation Abs Online 1861-2007/Jul**

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[File 65] **Inside Conferences 1993-2007/Aug 13**

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[File 592] **KOMPASS Asia/Pacific 2007/JUL**

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17/K/1 (Item 1 from file: 65) **Links**

Fulltext available through: **ScienceDirect**

Inside Conferences

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05090159 **Inside Conference Item ID: CN053003010**

**Material Recycling of Waste Plastics for Home Appliances**

Matsuo, Y.; Fujita, A.; Minegishi, A.; Iwata, S.; Iseki, Y.; **Takagi, T.**; Ishii, T.

**Conference:** Ecomaterials; ICEM 6th - International conference; 6th

TRANSACTIONS-MATERIALS RESEARCH SOCIETY OF JAPAN , 2004; VOL 29; NO 5 P: 1857-1860  
MRS-J, 2004

ISSN: 1382-3469

**Language:** English **Document Type:** Conference Papers

**Sponsor:** IUMRS

ICAM

2003; Oct ( 200310 ) ( 200310 )

**Note:**

Held at the IUMRS-ICAM symposia. Matsuo, Y.; Fujita, A.; Minegishi, A.; Iwata, S.; Iseki, Y.; **Takagi, T.**; Ishii, T.

17/K/2 (Item 2 from file: 65) [Links](#)

Fulltext available through: [ScienceDirect](#)

Inside Conferences

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04357436 **Inside Conference Item ID:** CN045641971

**Development of a Compact Tritium Gas Recycling System**

Kato, M.; Sugai, H.; Hayashi, T.; Nishi, M.; Tanase, M.; Matsuzaki, T.; **Ishida, K.**; Nagamine, K.

**Conference:** Muon catalyzed fusion and related exotic atoms; International RIKEN conference - International conference

HYPERFINE INTERACTIONS , 2001; VOL 138; NO 1-4 P: 397-401

Kluwer Academic, 2001

ISSN: 0304-3843

**Language:** English **Document Type:** Conference Selected papers

**Editor:** **Ishida, K.**; Nagamine, K.

**Sponsor:** Institute of Physical and Chemical Research (RIKEN)

**Location:** Shimoda, Japan

2001; Apr ( 200104 ) ( 200104 )

**Note:**

Also known as MuCF01

**Development of a Compact Tritium Gas Recycling System** Kato, M.; Sugai, H.; Hayashi, T.; Nishi, M.; Tanase, M.; Matsuzaki, T.; **Ishida, K.**; Nagamine, K.

**Editor:** **Ishida, K.**; Nagamine, K.

17/K/3 (Item 3 from file: 65) [Links](#)

Fulltext available through: [ScienceDirect](#)

Inside Conferences

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04351768 **Inside Conference Item ID:** CN045585293

**Development of Electrochemical Hydrogen Pump Under Vacuum Condition for a Compact Tritium Gas Recycling System**

Kato, M.; Itoh, T.; Sugai, H.; Kawamura, Y.; Hayashi, T.; Nishi, M.; Tanase, M.; Matsuzaki, T.; **Ishida, K.**; Nagamine, K.

**Conference:** Tritium science and technology - International conference; 6th

FUSION SCIENCE AND TECHNOLOGY , 2002; VOL 41; NO 3; PT 2 P: 859-866

American Nuclear Society, 2002

ISSN: 1536-1055

**Language:** English **Document Type:** Conference Selected papers

**Sponsor:** Japan Atomic Energy Research Institute

**Location:** Tsukuba, Japan

2001; Nov ( 200111 ) ( 200111 )

**Note:**

Also known as Tritium 2001

**Development of Electrochemical Hydrogen Pump Under Vacuum Condition for a Compact Tritium Gas Recycling System ...M.; Itoh, T.; Sugai, H.; Kawamura, Y.; Hayashi, T.; Nishi, M.; Tanase, M.; Matsuzaki, T.; Ishida, K.; Nagamine, K.**